

Publication

EP 0818610 A3 19980128

Application

EP 97202159 A 19970711

Priority

JP 18351596 A 19960712

Abstract (en)

[origin: EP0818610A2] A valve timing control device (30) has a rotor (64) fixed on a cam shaft (34) of an engine and a housing (50) rotatably mounted on the cam shaft (34). The housing (50) surrounds the rotor (34). A chamber (60) between the housing (50) and the rotor (64) has a pair of circumferentially opposed walls (60a,60b). A vane (68) is mounted on the rotor (64) and extends outwardly therefrom in the radial direction into the chamber (60) so as to divide the chamber (60) into a first pressure chamber (76) and a second pressure chamber (78). A plate spring (74) between the rotor (64) and the vane (68) and a fluid supply means (91) supplies at least a selected one of the first pressure chamber (76) and the second pressure chamber (78). <IMAGE>

IPC 1-7

F01L 1/344

IPC 8 full level

F01L 1/34 (2006.01); **F01L 1/344** (2006.01)

CPC (source: EP US)

F01L 1/3442 (2013.01 - EP US); **F01L 2001/34479** (2013.01 - EP US); **F02B 2275/18** (2013.01 - EP US); **Y10T 74/2102** (2015.01 - EP US)

Citation (search report)

- [A] FR 1085087 A 19550127
- [A] WO 8704489 A1 19870730 - BISHOP ARTHUR E
- [A] DE 4237193 A1 19940505 - BOSCH GMBH ROBERT [DE]
- [A] US 5487457 A 19960130 - ISANHART BOWDIE J [US]

Cited by

DE10237414B4; DE10246838A1; DE19963094A1; FR2812908A1; US7234427B2; US6968818B2; DE29925012U1; US7305947B2; US6427654B2; US6457448B1; WO03100222A1; WO0111203A1; WO2005113945A1

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